

M 4.5, 15 km SW of Westley, CA

Origin Time: 2023-09-19 04:13:09 UTC (Mon 21:13:09 local)

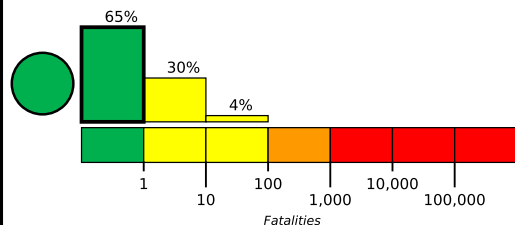
Location: 37.4552° N 121.2230° W Depth: 5.0 km

FOR TSUNAMI INFORMATION, SEE: tsunami.gov

PAGER
Version 12

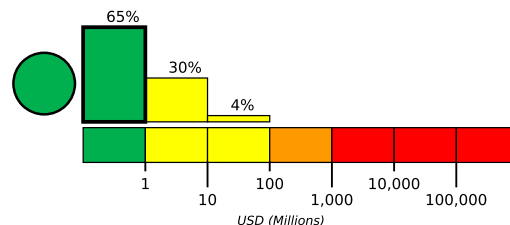
Created: 2 weeks, 5 days after earthquake

Estimated Fatalities



Green alert for shaking-related fatalities and economic losses. There is a low likelihood of casualties and damage.

Estimated Economic Losses

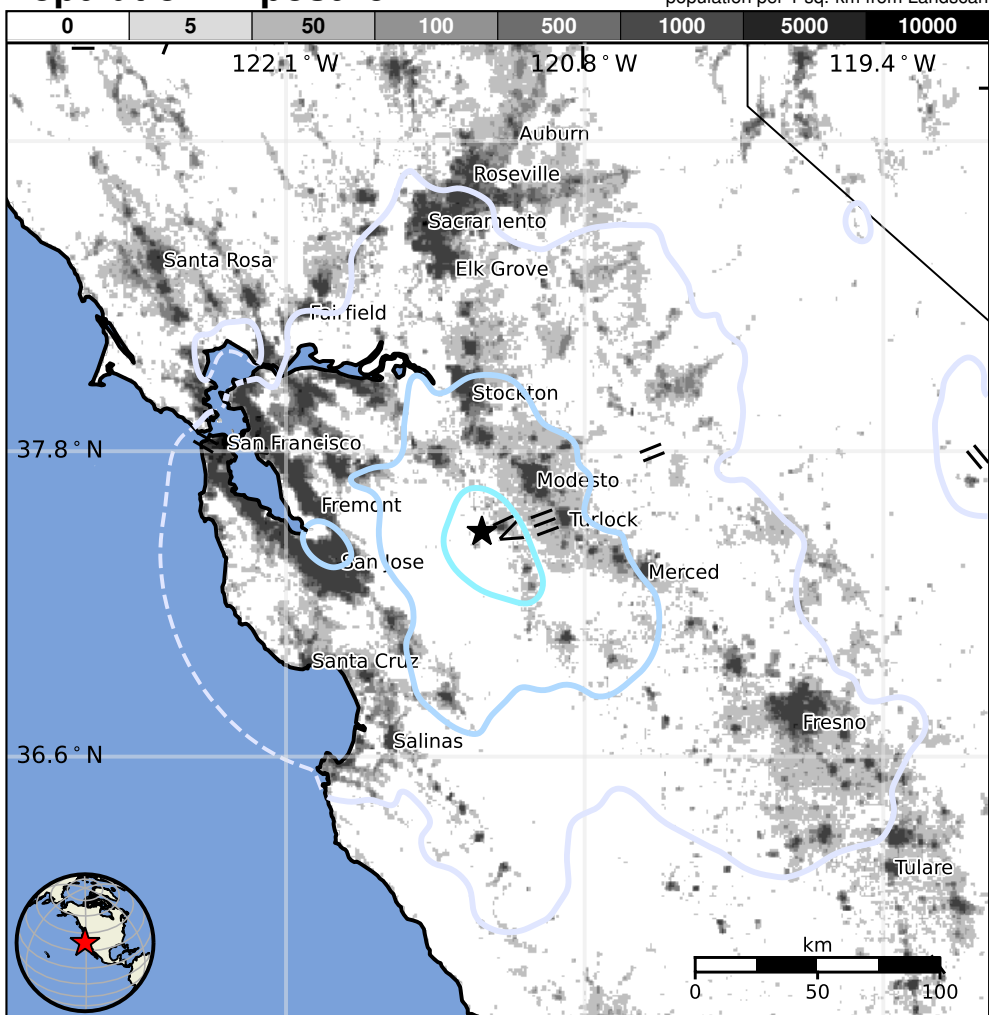


Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)	2,798k*	12,675k	46k	0	0	0	0	0	0
ESTIMATED MODIFIED MERCALLI INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+
PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	Resistant Structures	None	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. Heavy

*Estimated exposure only includes population within the map area.

Population Exposure



Structures

Overall, the population in this region resides in structures that are resistant to earthquake shaking, though vulnerable structures exist. The predominant vulnerable building types are unreinforced brick masonry and reinforced masonry construction.

Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
2003-12-22	204	6.6	VI(8k)	2
1980-01-24	52	5.8	VII(35k)	1
1989-10-18	61	6.9	VIII(109k)	62

Recent earthquakes in this area have caused secondary hazards such as landslides and liquefaction that might have contributed to losses.

Selected City Exposure

from GeoNames.org

MMI	City	Population
IV	Patterson	20k
IV	Gustine	6k
IV	Newman	10k
III	Ridgemark	3k
III	Hollister	35k
III	Lathrop	18k
III	San Jose	946k
II	San Francisco	805k
II	Fresno	495k
II	Sacramento	466k
I	Carson City	55k

PAGER content is automatically generated, and only considers losses due to structural damage.

Limitations of input data, shaking estimates, and loss models may add uncertainty.

<https://earthquake.usgs.gov/earthquakes/eventpage/nc73938736#pager>

bold cities appear on map.

(k = x1000)

Event ID: nc73938736